

ABLATION SYSTEM

5 Related US Application Data

This application is a divisional of US Serial No. 10/132379, now pending, and also claims priority to Provisional US Patent Application No. 60/287,202, filed April 26, 2001 by Francischelli et al., incorporated herein by reference in its entirety.

USPN 6,648,883

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10 Background of the Invention

The present invention relates to tissue ablation devices generally and relates more particularly to devices adapted to ablate lines of tissue, for example for use in conjunction with an electrosurgical version of the Maze procedure.

15 The Maze procedure is a surgical intervention for patients with chronic atrial fibrillation (AF) that is resistant to other medical treatments. The operation employs incisions in the right and left atria which divide the atria into electrically isolated portions which in turn results in an orderly passage of the depolarization wave front from the sino-atrial node (SA Node) to the atrial-ventricular node (AV Node) while preventing reentrant wave front propagation. Although successful in treating AF, the surgical Maze procedure is quite complex and is currently performed by a limited number of highly skilled cardiac surgeons in conjunction with other open-heart procedures. As a result of the complexities of the surgical procedure, there has been an increased level of interest in procedures employing electrosurgical devices or other types of ablation devices, e.g. thermal ablation, micro-wave ablation, cryo-ablation or the like to ablate tissue along pathways approximating the incisions of the Maze procedure. . Electrosurgical systems for performing such procedures are described in U.S. Patent No 5,916,213, issued to Hiassaguerre, et al. U.S. Patent No. 5,957,961, issued to Maguire, et al. and U.S. Patent No. 5,690,661, all incorporated herein by

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